Diagnostics

Next session begins at 1:15 PM

Diagnostics

Welcome!

Michael Cowger
IADS Team

Diagnostics

Using IADS on various platforms to interface IETMs with external hardware

Diagnostics

MSD-V2 (Maintenance Support Device Version 2)

Fourth generation of the Multipurpose Standard Automatic Test Equipment family

CTS (Contact Test Set)

Diagnostics

SPORT

(Solder's Portable On-system Rep[illegible]Tool)

Diagnostics

MSD & MSD-V2

(Maintenance Support Device)

Diagnostics

ICE

(Internal Combustion Engine)

Diagnostics

ICE

(Internal Combustion Engine)

Diagnostics

DLL Interface

IADS Software

IETM (Interactive Electronic Technical Manual

DLL (Dynamic Link Library)

Provides communications layer between IETM and external hardware

External Hardware

RS-232 or PCMCIA

Diagnostics

External hardware includes ICE kits, DMM, N[illegible]ork

Diagnostics

In-Vehicle Networking

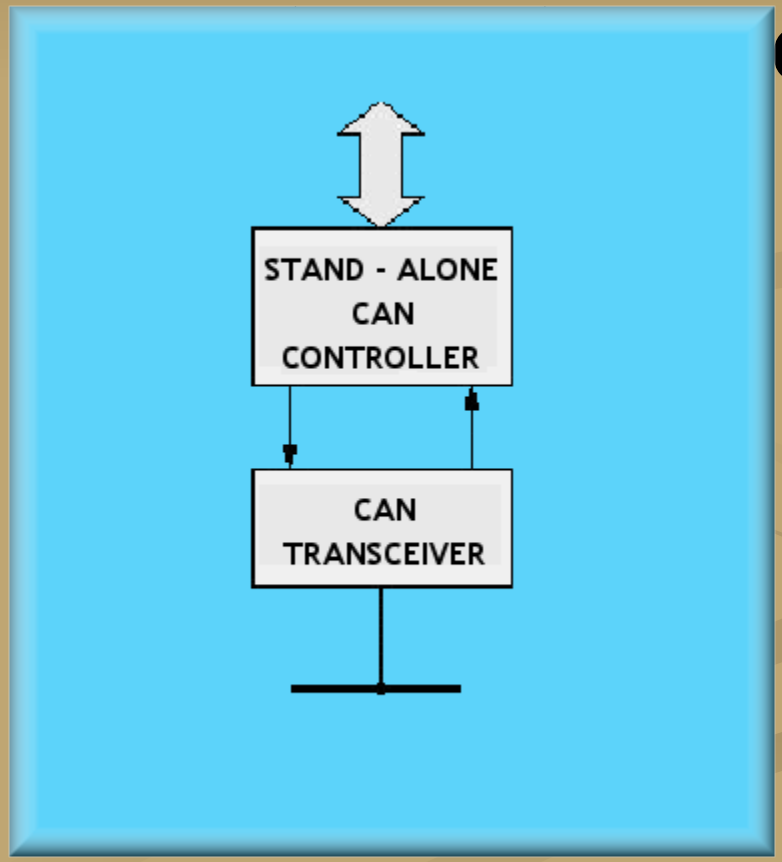
J1553

J1708 & CAN

Diagnostics

Controller Area Network

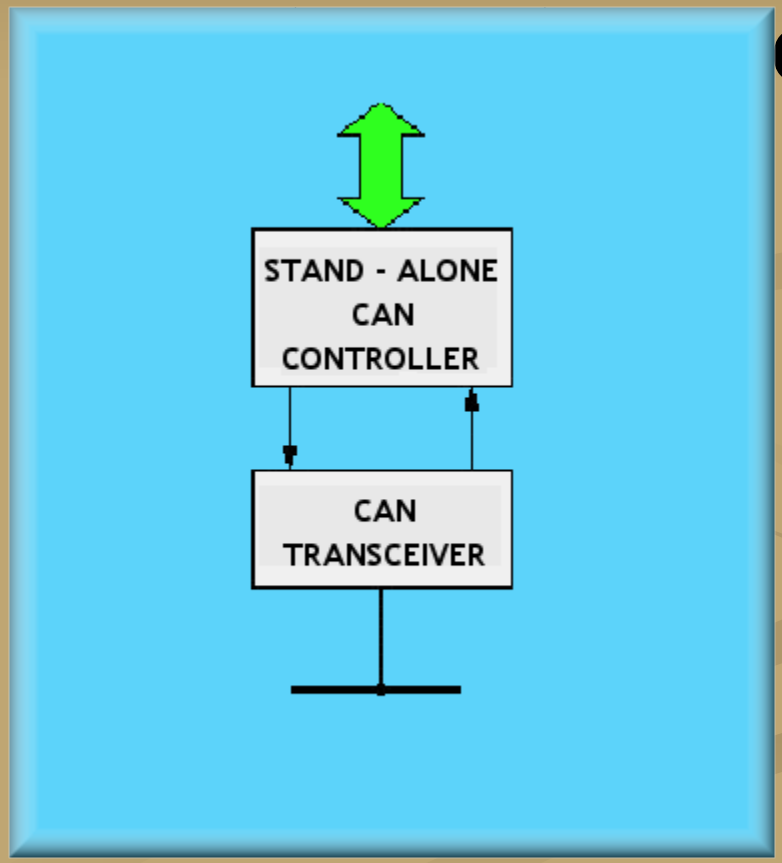
de



- Device
- Controller
- Transceiver
- Bus

Diagnostics

Controller Area Network



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- Device
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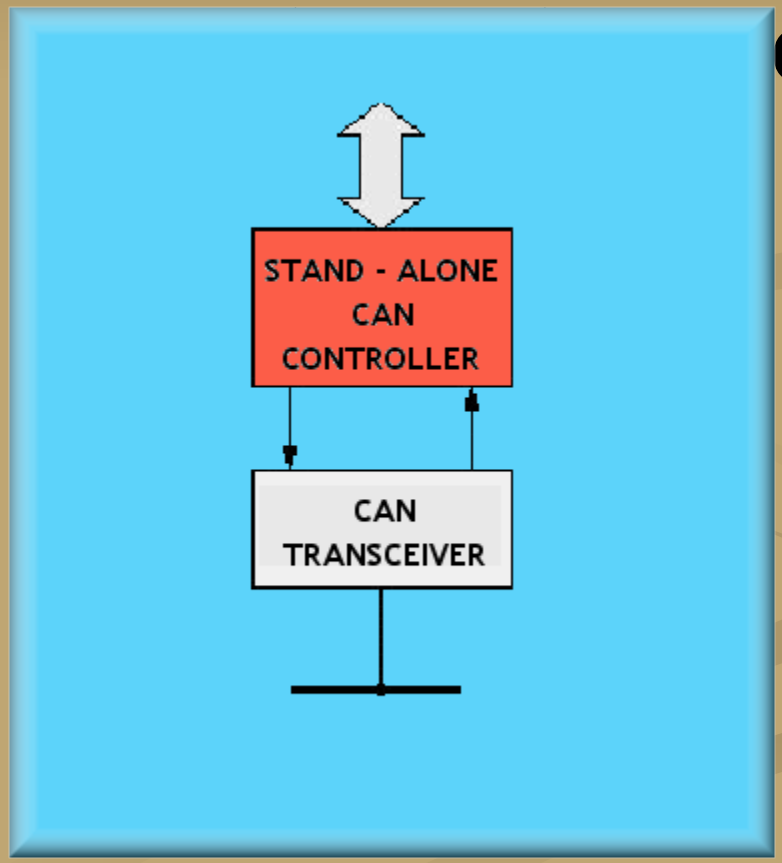
Diagnostics

Controller Area Network



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- Device
- Controller
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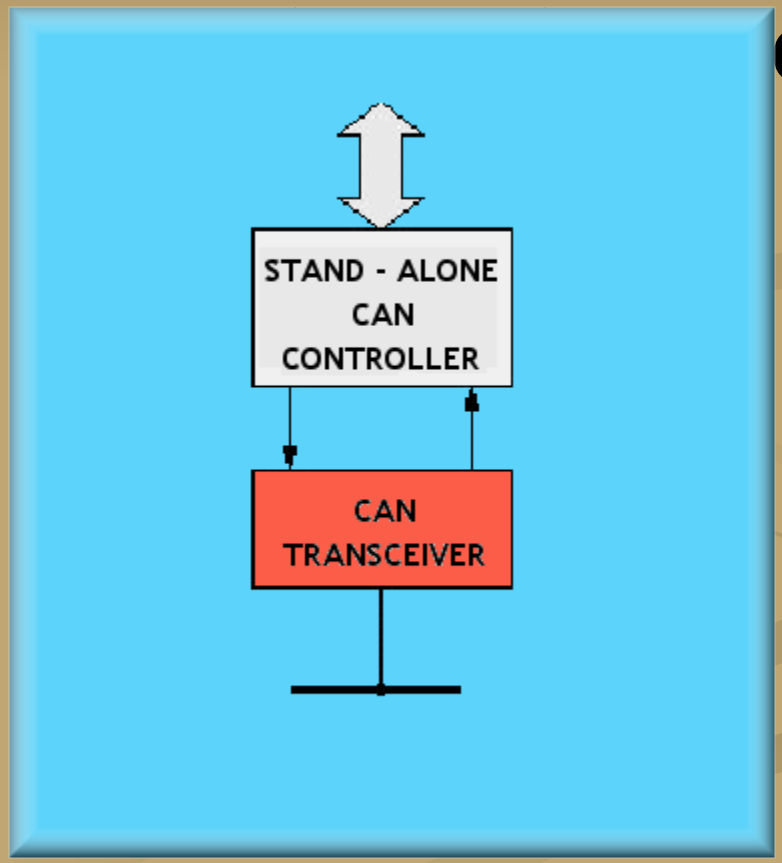
Diagnostics

Controller Area Network



- Device
- Controller
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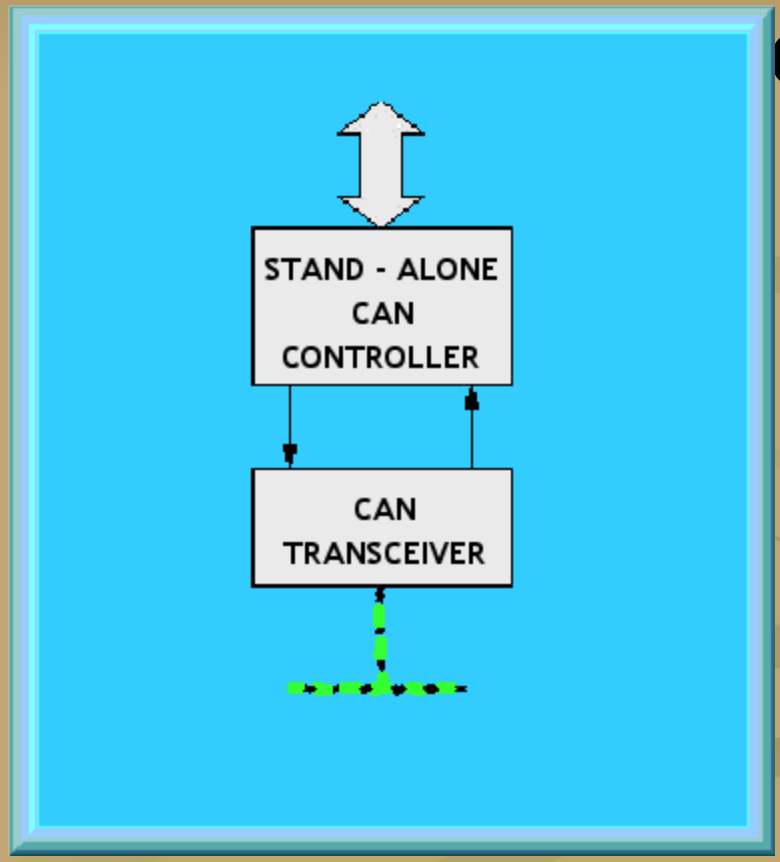
- Bus

Diagnostics

Controller Area Network



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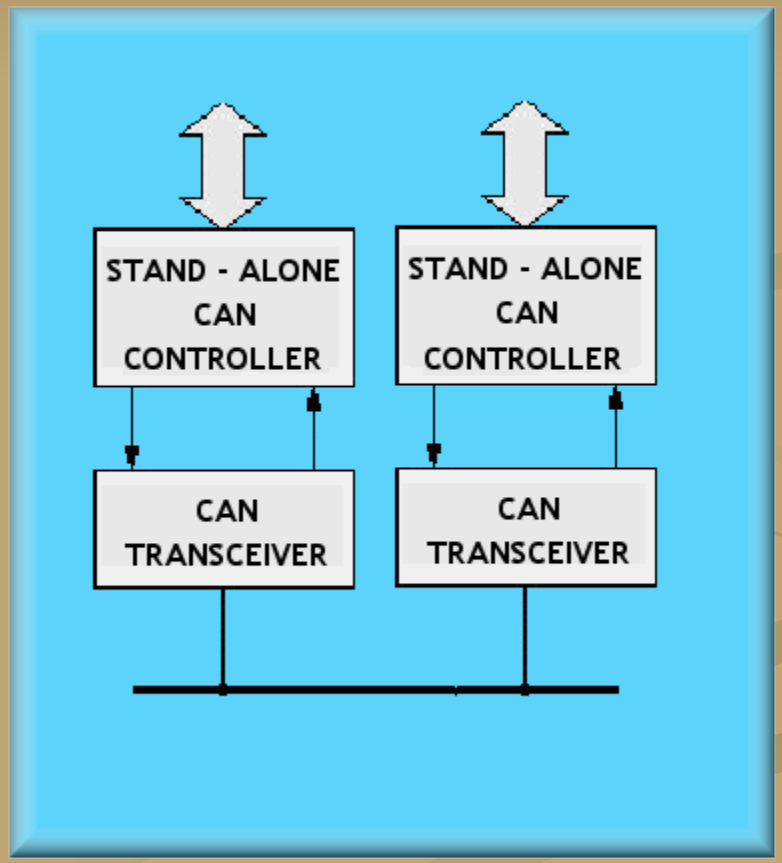
- Device
- Controller
- Transceiver
- **Bus**

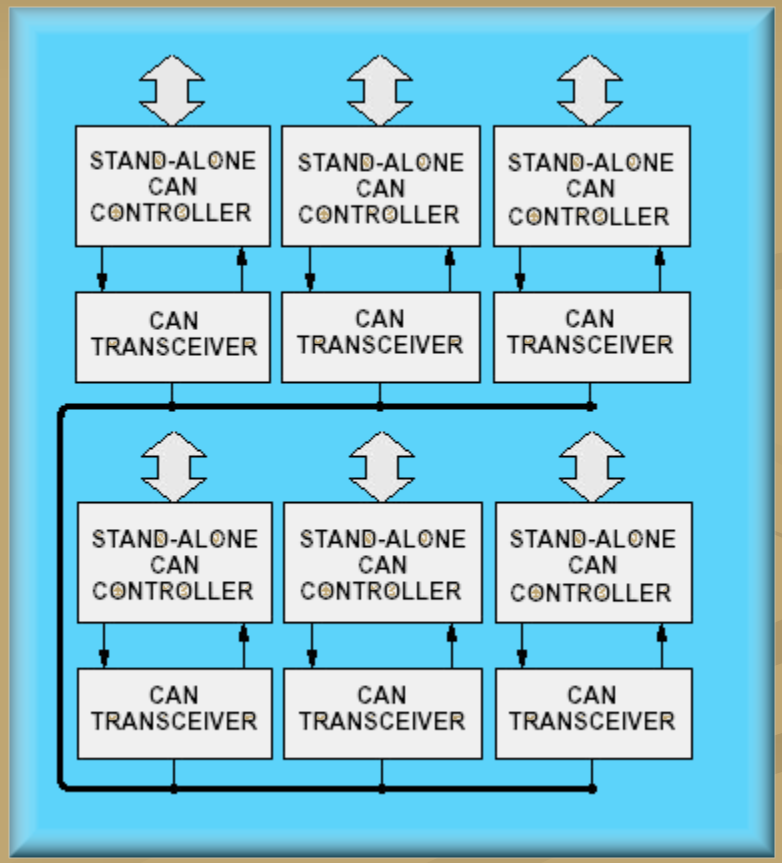
Diagnostics

Controller Area Network



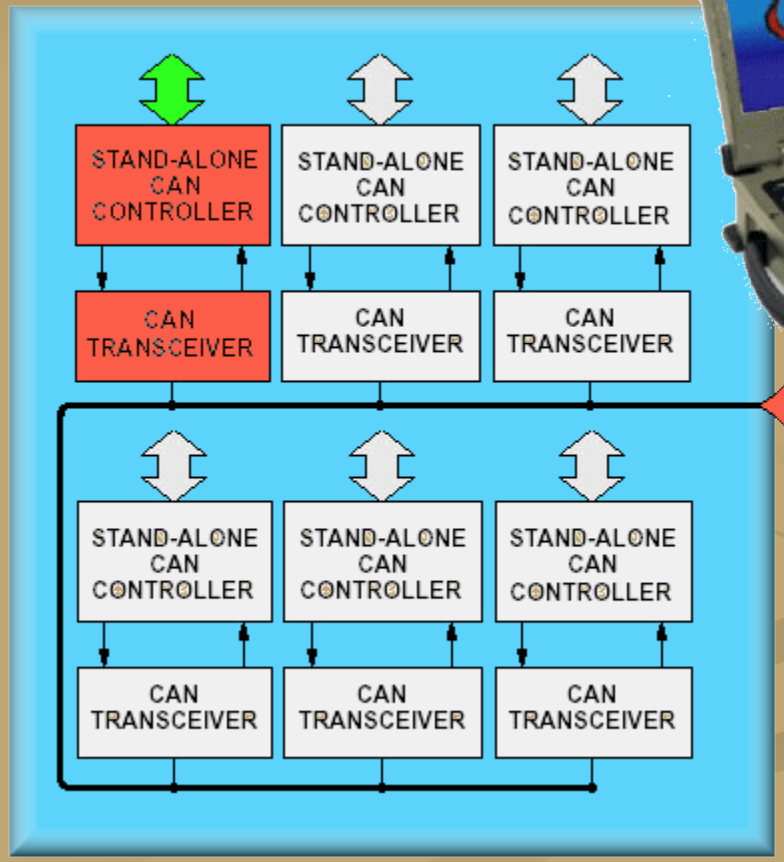
Diagnostics

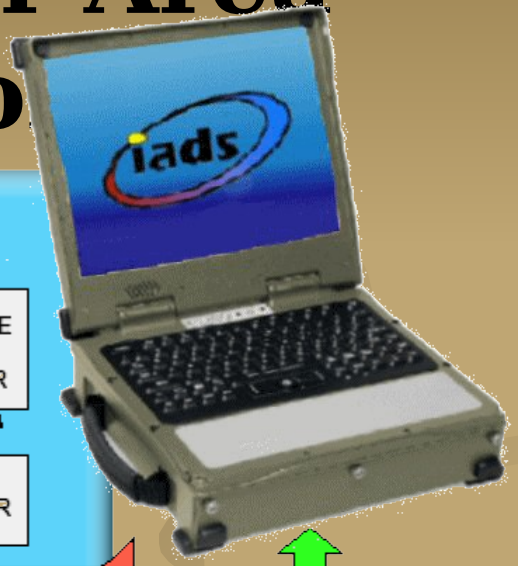
Controller Area Network

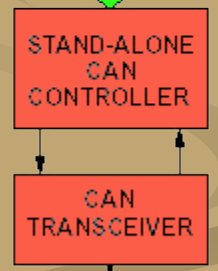


Diagnostics

Controller Area Netwo







Diagnostics

Demonstration

Using MSD & Ice Kit to check MLRS RPMS

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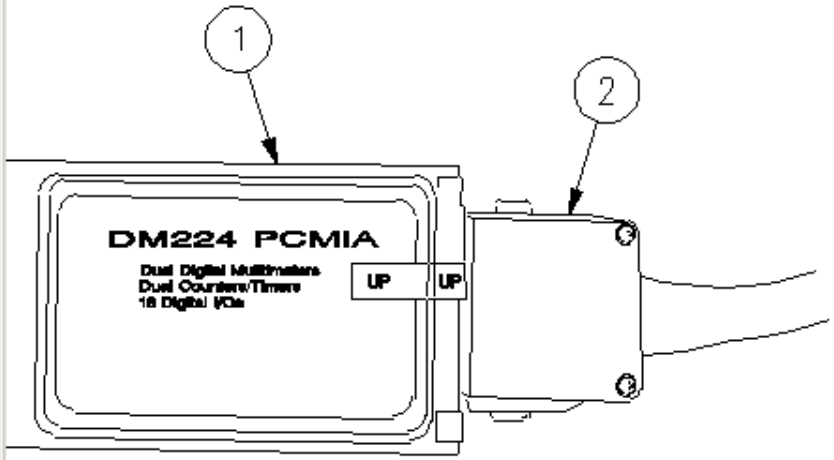

Image...

Hook Up/...13(Step2)MSD

2. CHECK THAT DMM CARD (1) IS SECURELY ATTACHED TO THE INTERFACE CABLE CONNECTOR (2).

UNIT MAINTENANCE, HOOK UP/REMOVE ICE TEST EQUIPMENT TO DCA 3 OR DCA 13

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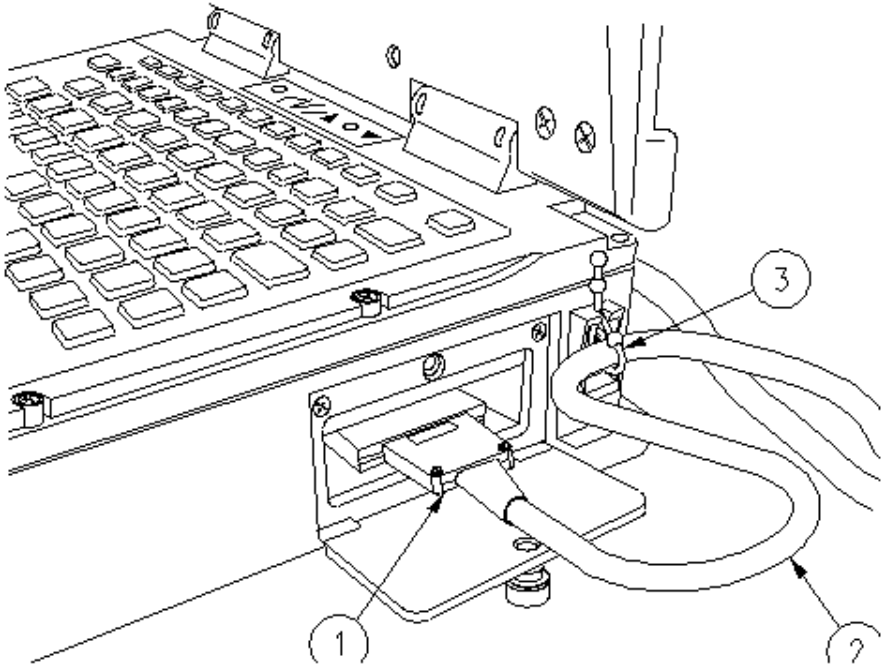

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Hook Up/...13(Step5)MSD

5. TO ENSURE THAT THE CARD CONNECTOR (1) REMAINS SECURELY CONNECTED INSERT INTERFACE CABLE (2) INTO THE STRAIN RELIEF CONNECTOR (3).

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UNIT MAINTENANCE, HOOK UP/REMOVE ICE TEST EQUIPMENT TO DCA 3 OR DCA 13

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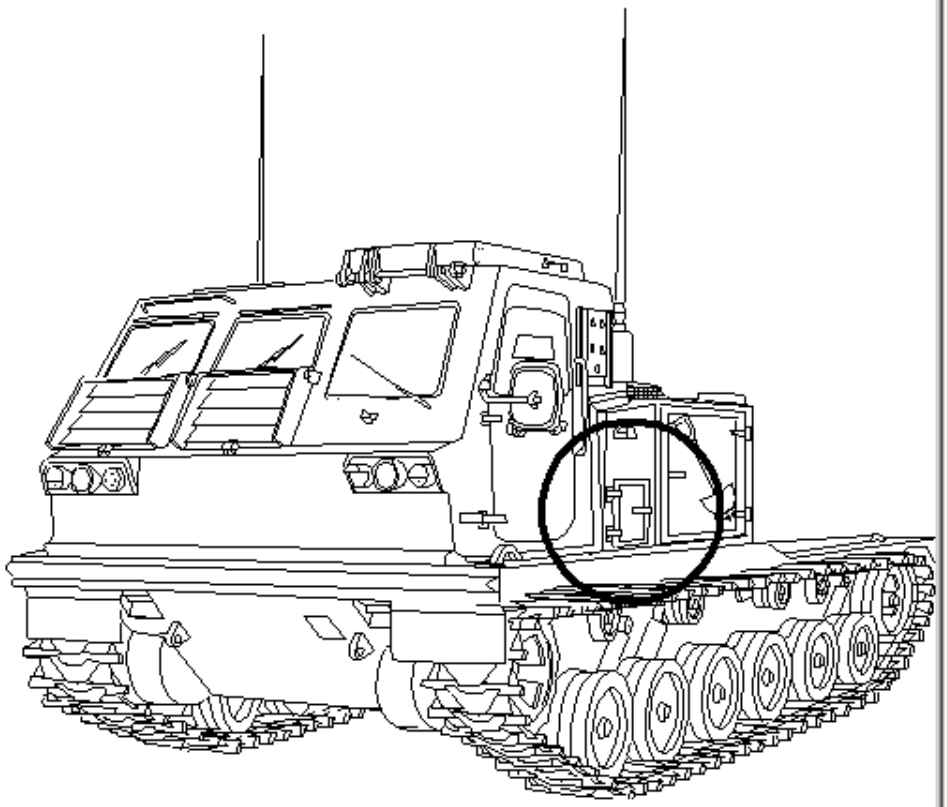

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Hook Up/...13(Step9)MSD

9. OPEN ELECTRICAL EQUIPMENT ACCESS DOOR (1).

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UNIT MAINTENANCE, HOOK UP/REMOVE ICE TEST EQUIPMENT TO DCA 3 OR DCA 13

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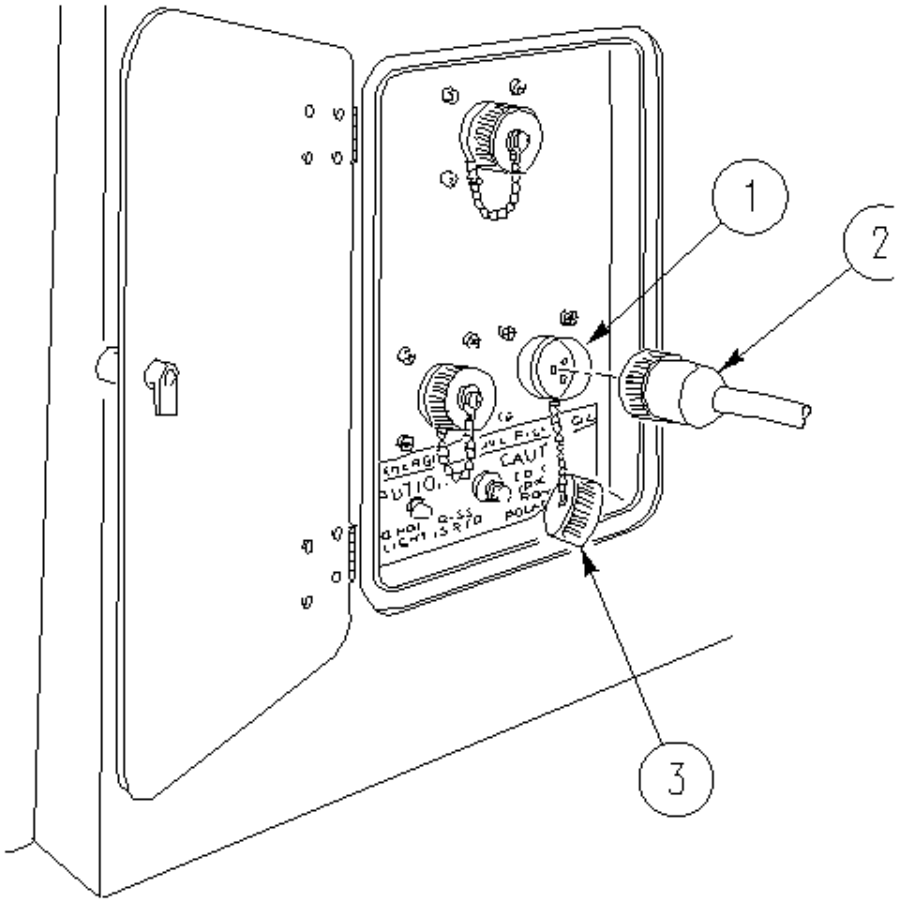

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Hook Up/...13(Step10)MSD

NOTE

Hook up to DCA3 or DCA13 as instructed by troubleshooting procedure.
To hook up to jack 1A1J10 (DCA 3), go to step 10. To hook up to jack 1A1J11 (DCA 13), go to step 11.

10. INSTALL PLUG W1P2 (2) ON JACK 1A1J10 (DCA 3) (1).

a. Remove cap (3) from jack 1A1J10 (DCA 3) (1).

b. Install plug W1P2 (2) on jack 1A1J10 (DCA 3) (1).

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Start UNIT MAINTENANCE, H... untitled - Paint 10:38 AM

1. TURN VEHICLE MASTER SWITCH ON.
2. START ENGINE.
3. PERFORM TEST 10.
4. CHECK DISPLAY.

a. Test 10 passes if display readout is within limits.

CONDITION	RPM LIMITS
Idle	775-825
Governed Speed (in Neutral with accelerator pedal fully depressed)	2900-3040

1. TURN VEHICLE MASTER SWITCH ON.
2. START ENGINE
3. PERFORM TEST
4. CHECK DISPLAY.

a. Test 10 passes if c

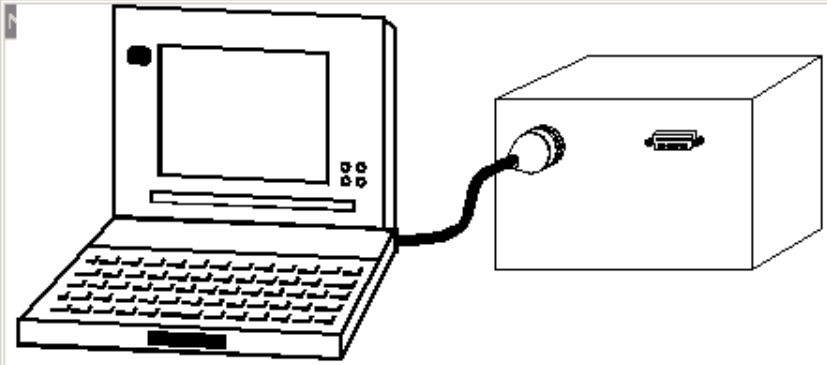
CONDITION
Idle
Governed Speed (in Ne accelerator pedal fully

Tester Hardware Selection

Indicate the tester hardware that you will be using:

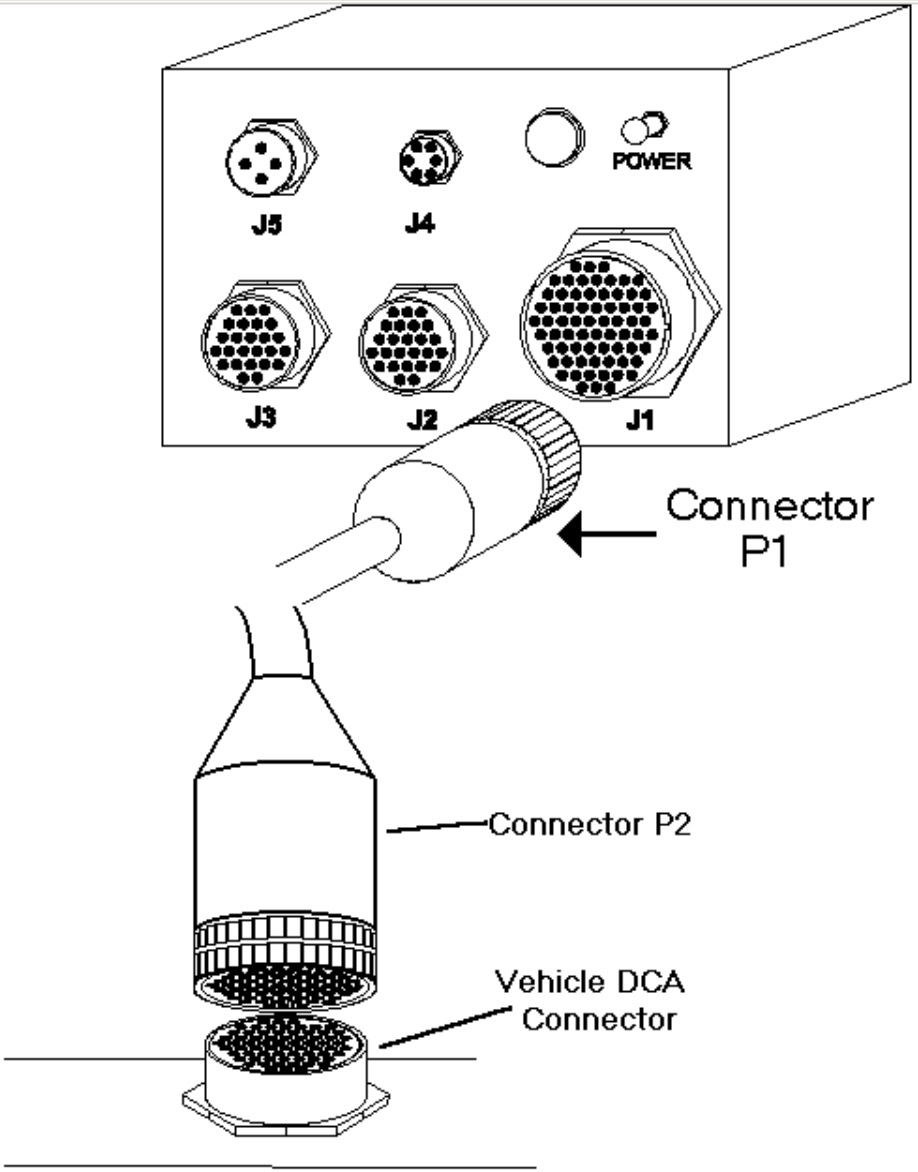
1. Serial-ICE

2. DMM-ICE



Attach the serial cable from a computer COM port to J6 on the ICE Box.

Make sure that the vehicle engine and all accessories are off.
If vehicle DCA power is to be used, attach connector P1 of cable W1 to J1(DCA) on the ICE Box. Attach connector P2 of cable W1 to the DCA connector on the vehicle.
If NATO slave power is to be used, attach the NATO cable to J5 on the ICE Box.
Turn on the ICE Box power by pulling out the power switch button. The status LED should turn green.



OK Cancel

UNIT MAINTENANCE, ICE TEST 27 - GENERATOR VOLTAGE

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MSD/ICE 27...Voltage(Step1)

1. HOOK UP MSD/ICE TO DCA 13.
2. TURN VEHICLE MASTER SWITCH ON
3. PERFORM TEST 27.
4. START ENGINE.
5. TURN ON SERVICE DRIVE LIGHTS.
6. CONTINUTE WITH STEP 8.

ICE

RELAY ERROR!

The tester is not responding to a relay command.
Make sure that the tester power switch is on and that the power is properly connected.
If the problem persists, return the tester for repairs.

OK

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Start | UNIT MAINTENANCE, IC... | untitled - Paint | 11:02 AM

Diagnostics

Requirements & Training?

Diagnostics

Questions?

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